PEMDAS Advanced STEP BY STEP LESSON

Solve: $22 - 9 \div 3 \times (2^3 + 11)$



This problem requires us to remember the acronym (PEMDAS). I like to write it vertically so that we can see the association within multiplication and division. When you have the choice between multiplication and division always process it left to right:

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$$22 - 9 \div 3 \times (2^3 + 11)$$

A) Parentheses: $22 - 9 \div 3 \times 19$ | Math: $(2^3 + 11) = 19$

Here is the tricky choice, we know that multiplication and division should always be processed left to right. This is the flow:

 $22 - 9 \div 3 \times 19$ (So we should divide first, since division is on the left)

B) Division: $22 - 3 \times 19$ | Math: $9 \div 3 = 3$

C) Multiplication comes before subtraction.

Multiplication: $22 - 3 \times 19$ | Math: $3 \times 19 = 57$

D) Subtraction: 22 - 57 = -35